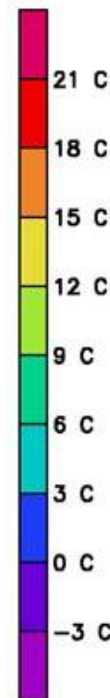
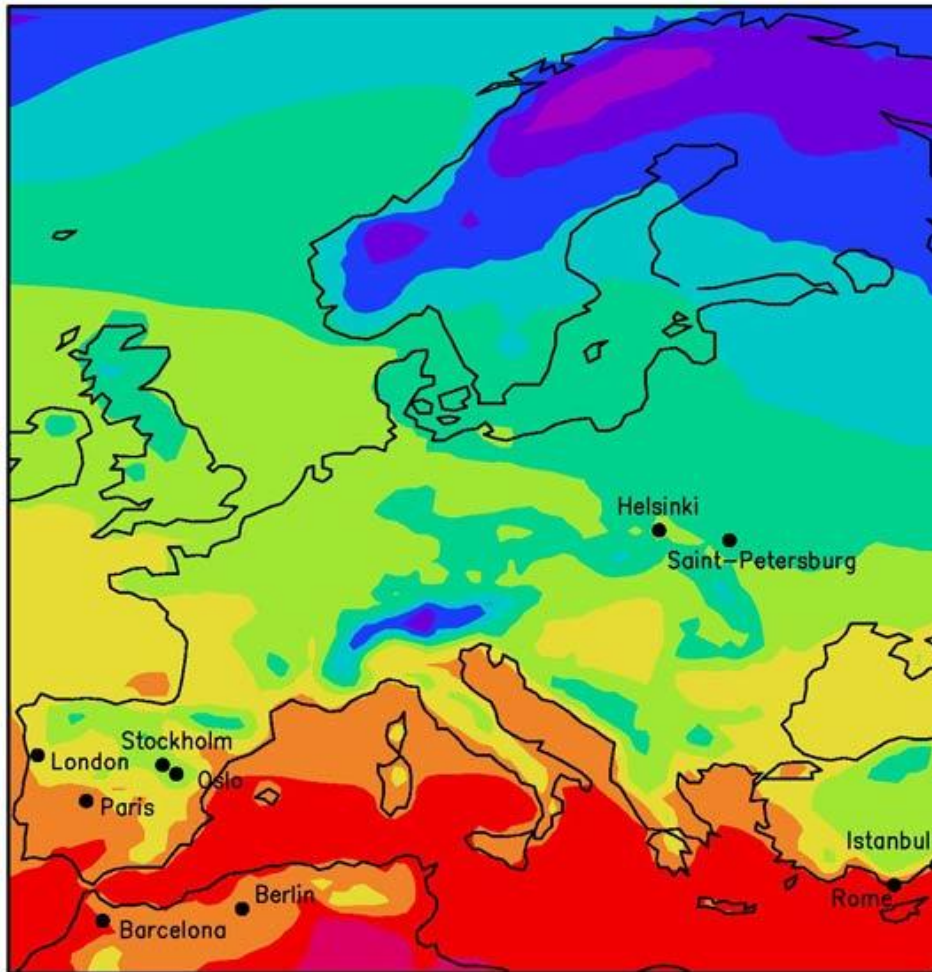


Security of the European Food Chain?

The climate map of Europe in 2080: high emissions scenario, based on temperature and aridity (but not rainfall)



The amount our climate could change is significant

Our natural environment is not adapted to the Climate of Southern Europe

This would mean significant changes to how we use land, and manage our water supply.

The affect on the more Southerly Countries will also effect us: trade and relations

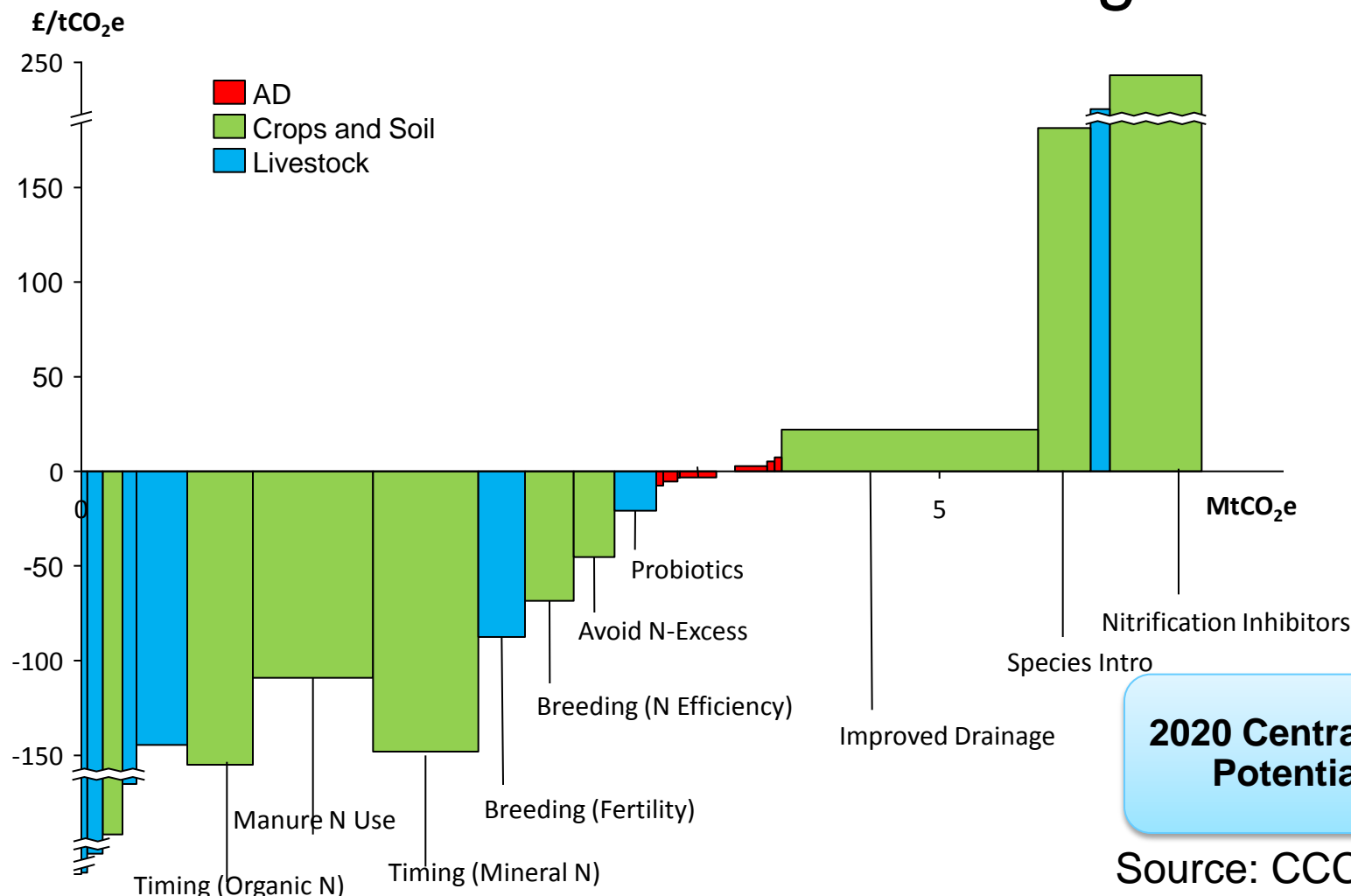
International Centre for Research on the Environment and Development (France)
University of Bremen

“Identification of Knowledge Gaps” Research Priorities

- **Timing** of mineral/organic Nitrogen applications
- Use of **Nitrification Inhibitors/Slow Release** fertilisers
- **Carbon storage**, Forestry, Soils & Soil Emissions
(No till/min till; Organic Soils)
- Manipulation of **Animal Diets** for methane mitigation
- Understanding the **Economics of reducing GHGs**
- Improving **National GHG Inventory & Carbon Calculators**
- **Perverse Outcomes** due to interconnectivity of Sector

Agriculture Marginal Abatement Cost Curve

Benefits & Costs of reducing GHGs



The Way Forward

To Share & Co Operate Internationally!!

- **Farming & Food Industry must engage with this Debate!**
- **Focusing on CC alone, leads to Perverse Outcomes**
- **Invest in R&D to accelerate more novel mitigation options into the market place. Eg Nitrogen Inhibitors**
- **Invest in R&D to smarten the IPCC & LCA Methodology and in Measurement Technology**
- **Invest in refining Carbon Calculators to allow Recognition of “On Farm” Sequestration**
- **Develop “Whole Farm” approaches which deliver multiple policy wins, eg woody species, planted as Riparian strip to deliver on Water Frameworks Dir., Carbon Offsetting, etc.**